ORDINANCE NO.

AN ORDINANCE OF THE CITY OF SAN JOSE AMENDING THE SAN JOSE MUNICIPAL CODE TO AMEND SECTION 15.10.290 OF CHAPTER 15.10 OF TITLE 15, CHAPTER 15.11 OF TITLE 15 IN ITS ENTIRETY, AND SECTION 20.100.440 OF CHAPTER 20.100 OF TITLE 20, ALL TO MODIFY THE WATER EFFICIENT LANDSCAPE STANDARDS FOR NEW AND REHABILITATED LANDSCAPING AND TO ESTABLISH WATER EFFICIENT LANDSCAPE REGULATIONS PURSUANT TO STATE LAW

WHEREAS, the adoption and enforcement of this Ordinance is necessary to manage the City of San José's potable water supply in the short and long-term and to avoid or minimize the effects of drought and water shortage within the City. This Ordinance is essential to ensure a reliable and sustainable minimum supply of water for the public health, safety and welfare; and

WHEREAS, the California Water Conservation in Landscaping Act of 2006, Government Code section 65591, et seq., (the "Act"), requires cities and counties, including charter cities and charter counties, to adopt landscape conservation ordinances; and

WHEREAS, the Act requires cities and counties to adopt the model ordinance contemplated by the Act (the "Model Ordinance") or an equivalent document which is "at least as effective as" the Model Ordinance in addressing the efficient use of water in landscaping; and

WHEREAS, the City of San José ("City") has developed this Ordinance to meet the requirements and guidelines of the Model Ordinance and to address certain policy and environmental goals related to the use of recycled water; and

WHEREAS, the requirements of this Ordinance are consistent with the landscape

requirements contained in the Model Ordinance, however this Ordinance contains provisions which: 1) provide alternatives that allow landscape projects to meet water efficiency standards mandated by the Act; and 2) facilitate the use of recycled water; and

WHEREAS, the City Council finds and determines this Ordinance is "at least as effective as" the Model Ordinance due to its consistency with the Model Ordinance and the additional provisions which reflect the City's strong commitment to the use of recycled water in the City; and

WHEREAS, the City is the lead agency under CEQA (defined below) for the approval and adoption of this Ordinance, and the City Council of the City is the decision-making body for the City in connection with the approval and adoption of this Ordinance; and

WHEREAS, pursuant to the provisions of the California Environmental Quality Act of 1970, together with state and local implementation guidelines and regulations, including without limitation Title 21 of the San José Municipal Code, all as amended to date (collectively, "CEQA"), the environmental impacts resulting from the adoption of this Ordinance are described in that certain Final Program Environmental Impact Report prepared for the Envision San José 2040 General Plan, for which certain related findings were made by the City Council through its Resolution No. 76041, adopted on November 1,2011, under File No. PP12-078; and

WHEREAS, the City Council of the City has considered the environmental impacts from the adoption of this Ordinance as described in the Envision 2040 San José General Plan Final Program Environmental Impact Report, together with its related Resolution No. 76041, as the CEQA clearance for this Ordinance project prior to taking any approval actions on this Ordinance.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF SAN

JOSE:

SECTION 1. Section 15.10.290 of Chapter 15.10 of Title 15 of the San José Municipal Code is amended to read as follows:

15.10.290 Landscape Irrigation

A. No person shall use, permit or allow the use of potable water to irrigate any outdoor landscaping at any time between the hours of ~~8~~10:00 a.m. and ~~6~~8:00 p.m. ~~during Pacific Daylight Savings Time, or between the hours of 10:00 a.m. and 3:00 p.m. during Pacific Standard Time~~, unless the person using, permitting or allowing the use of the water is using a bucket, hand-carried container, or a hose equipped with an automatic positive self-closing valve.

B. No person shall use, permit or allow the use of potable water to irrigate any outdoor landscaping or other vegetated area more than fifteen minutes per day per ~~s~~Station when using a landscape irrigation system or a watering device that is not continuously attended, except for landscape irrigation systems that exclusively use very low-flow drip type irrigation systems when no emitter produces more than two gallons of water per hour and weather-based controllers or stream rotor sprinklers that meet a seventy-one percent (71%)efficiency standard.

C. The restrictions on landscape irrigation contained in this section do not apply to the following activities or during the following periods of time:

1. Syringing of golf course greens, golf course tees, lawn bowling greens or lawn tennis courts;

2. The conduct of a landscape water management audit to provide for the evaluation and adjustment of a landscape irrigation system; or

3. During plant Establishment Periods as defined in Section 15.11.390 of this

Code.

SECTION 2. Chapter 15.11 of Title 15 of the San José Municipal Code is amended in its entirety, to be numbered, entitled, and to read as follows:

CHAPTER 15.11

WATER EFFICIENT LANDSCAPE STANDARDS FOR NEW AND REHABILITATED LANDSCAPING

Part 1
General Provisions

15.11.010 Purpose

The purpose of this Chapter is to promote the conservation and efficient use of water and to prevent the waste of this valuable resource by regulating landscape design, installation, and maintenance consistent with the Water Conservation in Landscaping Act, California Government Code Section 65591, et. seq.

15.11.020 Applicability

A. The requirements of this Chapter shall apply to the following projects:

1. Those New Construction or Rehabilitated Landscape projects with a total Landscape Area equal to or greater than 2,500 square feet that require a Development Permit pursuant to the provisions of Chapter 20.100 of Title 20 of this Code and that are developer-installed; or

2. Those New Construction residential projects that are homeowner-provided or homeowner-hired at single-family or multi-family residences where the total Landscape Area is equal to or greater than 5,000 square feet and require a

Building Permit pursuant to the provisions of Title 24 of this Code or a Development Permit pursuant to the provisions of Chapter 20.100 of Title 20 of this Code.

B. Notwithstanding the provisions of Subsection A above, the requirements of this Chapter shall not apply to:

1. Registered federal, state, or City historical sites;

2. Ecological Restoration Projects that do not require a permanent irrigation system;

3. Hydraulic Mulch seeding (hydroseeding) for erosion/sedimentation control projects where a permanent irrigation system is not required;

4. Mined-Land Reclamation Projects that do not require a permanent irrigation system;

5. Community gardens, arboretums and plant collections as part of botanical gardens open to the public; and

6. The commercial cultivation of agricultural products including, but not limited to, products from farms, orchards, production nurseries, and forests.

Part 2

Definitions

15.11.200 Definitions

The definitions set forth in this Part shall govern the application and interpretation of this Chapter.

15.11.210 Anti-Drain Valve

"Anti-Drain Valve" or "Check Valve" means a Valve located under a Sprinkler Head to

hold water in the system so it minimizes drainage from the lower elevation Sprinkler Heads.

15.11.220 Applicant

"Applicant" means the individual or entity submitting a Landscape Documentation Package, as part of an application for a Development Permit or a Building Permit.

15.11.230 Application Rate

"Application Rate" means the depth of water applied to a given area, usually measured in inches per hour.

15.11.240 Applied Water

"Applied Water" means the water supplied to the Landscape Area by the irrigation system.

15.11.250 Automatic Irrigation Controller

"Automatic Irrigation Controller" is an automatic timing device used to remotely control Valves that operates an irrigation system. Automatic Irrigation Controllers schedule irrigation events using either evapotranspiration (weather-based) or soil moisture data.

15.11.260 Backflow Prevention Device

"Backflow Prevention Device" means a safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

15.11.265 Building Permit

"Building Permit" means a permit required for New Construction pursuant to the provisions of Section 24.02.100 of Chapter 24.02 of Title 24 of this Code.

15.11.270 Certificate of Completion

"Certificate of Completion" means the document specified in Section 15.11.1050.

15.11.280 Certified Irrigation Designer

"Certified Irrigation Designer" means a person certified to design irrigation systems by an accredited academic institution, a professional trade organization, or other program such as the U.S Environmental Protection Agency's Water Sense irrigation designer certification program, or the Irrigation Association's Certified Irrigation Designer program.

15.11.290 Certified Landscape Irrigation Auditor

"Certified Landscape Irrigation Auditor" means a person certified to perform landscape Irrigation Audits by an accredited academic institution, a professional trade organization, or other program such as the U.S. Environmental Protection Agency's WaterSense irrigation auditor certification program and Irrigation Association's Certified Landscape Irrigation Auditor program.

15.11.300 Check Valve

"Check Valve" or "Anti-Drain Valve" means a Valve located under a Sprinkler Head, or other location in the irrigation system, to hold water in the system to prevent drainage from Sprinkler Heads when the sprinkler is off.

15.11.310 Conversion Factor (0.62)

"Conversion Factor (0.62)" means the number that converts acre-inches per acre per year to gallons per square foot per year.

15.11.320 Development Permit

"Development Permit" means any permit issued pursuant to Chapter 20.100 of Title 20 of this Code, with the exception of a sidewalk café permit issued pursuant to Part 12 of Chapter 20.100.

15.11.330 Director

"Director" means the Director of Planning, Building and Code Enforcement.

15.11.340 Drip Irrigation

"Drip Irrigation" means any non-spray Low Volume Irrigation system utilizing emission devices with a Flow Rate measured in gallons per hour. Low Volume Irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

15.11.350 Ecological Restoration Project

"Ecological Restoration Project" means a project where the site is intentionally altered to establish a defined, indigenous, historic ecosystem.

15.11.360 Effective Precipitation or Usable Rainfall

"Effective Precipitation" or "Usable Rainfall" (Eppt) means the portion of total precipitation that becomes available for plant growth.

15.11.370 Emitter

"Emitter" means a Drip Irrigation emission device that delivers water slowly from the system to the soil.

15.11.380 Established Landscape

"Established Landscape" means the point at which plants in the landscape have developed significant root growth into the soil. Typically, most plants are established after one or two years of growth.

15.11.390 Establishment Period

"Establishment Period" means the first year after installing plants in the landscape, or the first two years, if irrigation will be terminated after establishment. Typically, most plants are established after one or two years of growth.

15.11.400 Estimated Total Water Use (ETWU)

"Estimated Total Water Use" (ETWU) means the total water use for the Landscape Area, estimated by applying the formula in Section 15.11.900.

15.11.410 Evapotranspiration Adjustment Factor (ETAF)

"Evapotranspiration Adjustment Factor" (ETAF) means a factor of 0.7, that, when applied to Reference Evapotranspiration, adjusts for plant factors and Irrigation Efficiency, two major influences upon the amount of water that needs to be applied to the Landscape Area.

A combined plant mix with a site-wide average of 0.5 is the basis of the Plant Factor portion of this calculation. For purposes of the ETAF, the average Irrigation Efficiency is

0.71. Therefore, the ET Adjustment Factor is (0.7)=(0.5/0.71). ETAF for a Special Landscape Area shall not exceed 1.0.

15.11.420 Flow Rate

"Flow Rate" means the rate at which water flows through pipes, Valves and emission devices, measured in gallons per minute, gallons per hour, or cubic feet per second.

15.11.430 Hardscapes

"Hardscapes" means any durable material (Pervious and non-Pervious).

15.11.440 Hydrozone

"Hydrozone" means a portion of the Landscape Area having plants with similar water needs. A Hydrozone may be irrigated or non- irrigated.

15.11.450 Infiltration Rate

"Infiltration Rate" means the rate of water entry into the soil expressed as a depth of water per unit of time (e.g., inches per hour).

15.11.460 Invasive Plant Species

"Invasive Plant Species" means species of plants not historically found in California that spread outside cultivated areas and can damage environmental or economic resources. Invasive Plant Species may be regulated by county agricultural agencies as noxious species. "Noxious weeds" means any weed designated by the Weed Control Regulations in the Weed Control Act as may be amended and identified on a Regional District noxious weed control list. Lists of Invasive Plant Species are maintained at the California Invasive Plant Inventory and USDA invasive and noxious weeds database.

15.11.470 Irrigation Audit

"Irrigation Audit" means an in-depth evaluation of the performance of an irrigation system conducted by a Certified Landscape Irrigation Auditor. An Irrigation Audit includes, but is not limited to: inspection, system tune-up, system test with distribution uniformity or emission uniformity, reporting Overspray or runoff that causes overland flow, and preparation of an irrigation schedule.

15.11.480 Irrigation Efficiency

"Irrigation Efficiency" (IE) means the measurement of the amount of water beneficially used divided by the amount of water applied. Irrigation Efficiency is derived from measurements and estimates of irrigation system characteristics and management practices. The minimum average Irrigation Efficiency for purposes of this Chapter is 0.71. Greater Irrigation Efficiency can be expected from well designed and maintained systems.

15.11.490 Landscape Architect

"Landscape Architect" means a person who holds a license to practice landscape architecture in the State of California pursuant to California Business and Professions Code, Section 5615, as may be amended.

15.11.500 Landscape Area

"Landscape Area" means all the planting areas, and Water Features in a landscape design plan. The Landscape Area does not include footprints of buildings or structures, sidewalks, driveways, parking lots, decks, patios, gravel or stone walks, other Pervious or non-Pervious Hardscapes, and other non-irrigated areas designated for non-development (e.g., open spaces and existing native vegetation).

15.11.510 Landscape Contractor

"Landscape Contractor" means a person licensed by the State of California to construct, maintain, repair, install, or subcontract the development of landscape systems.

15.11.520 Landscape Documentation Package

"Landscape Documentation Package" means the documents required under Section 15.11.910.

15.11.530 Landscape Project

"Landscape Project" means the total area of landscape in a project as defined in "Landscape Area" under Section 15.11.500 for purposes of this Chapter that meets the applicability requirements set forth in Section 15.11.020.

15.11.540 Lateral Line

"Lateral Line" means the water delivery pipeline that supplies water to the emitters or sprinklers from the Valve.

15.11.550 Local Water Purveyor

"Local Water Purveyor" means any entity, including a public agency, city, county, city and county, or private water company that provides retail water service.

15.11.560 Low Volume Irrigation

"Low Volume Irrigation" means the application of irrigation water at low pressure through a system of tubing or Lateral Lines and low-volume emitters such as Drip

Irrigation, drip lines, and bubblers. Low Volume Irrigation systems are specifically designed to apply small volumes of water slowly at or near the root zone of plants.

15.11.570 Main Line

"Main Line" means the pressurized pipeline that delivers water from the water source to the Valve or outlet.

15.11.580 Maximum Applied Water Allowance (MAWA)

"Maximum Applied Water Allowance" (MAWA) means the upper limit of annual Applied Water for the established Landscape Area. It is based upon the Reference Evapotranspiration, the ET Adjustment Factor, and the size of the Landscape Area. The Estimated Total Water Use shall not exceed the Maximum Applied Water Allowance. Special Landscape Areas, including Recreational Areas, areas permanently and solely dedicated to edible plants such as orchards and vegetable gardens are subject to the MAWA with an ETAF not to exceed 1.0.

15.11.590 Mined-Land Reclamation Projects

"Mined-Land Reclamation Projects" mean any surface mining operation with a reclamation plan approved in accordance with the Surface Mining and Reclamation Act of 1975, as may be amended.

15.11.600 Mulch

"Mulch" means any organic material such as leaves, bark, straw, compost, or inorganic mineral materials such as rocks, gravel, and decomposed granite left loose and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.

15.11.610 New Construction

"New Construction" means, for the purposes of this Chapter, a new building with a landscape or other new landscape, such as a park, playground, or greenbelt without an associated building.

15.11.620 Operating Pressure

"Operating Pressure" means the pressure at which the parts of an irrigation system are designed by the manufacturer to operate.

15.11.030 Overhead Sprinkler Irrigation Systems

"Overhead Sprinkler Irrigation Systems" means systems that deliver water through the air (e.g., spray heads and rotors).

15.11.630 Overspray

"Overspray" means the water which is delivered beyond the target area.

15.11.640 Pervious

"Pervious" means any surface or material that allows the passage of water through the material and into the underlying soil.

15.11.650 Plant Factor

"Plant Factor" is a factor, when multiplied by ETo, estimates the amount of water needed by plants. For purposes of this Chapter, the Plant Factor range for low water use plants is 0.0 to 0.3, the Plant Factor range for moderate water use plants is 0.4 to

0.6, and the Plant Factor range for high water use plants is 0.7 to 1.0. Plant Factors cited in this Chapter are derived from the Department of Water Resources 2000 publication "Water Use Classification of Landscape Species" as may be amended.

15.11.660 Precipitation Rate

"Precipitation Rate" means the rate of application of water measured in inches per hour.

15.11.670 Record Drawing

"Record Drawing" or "As-Builts" means a set of reproducible drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the contractor.

15.11.680 Recreational Area

"Recreational Area" means areas dedicated to active play such as parks, sports fields, and golf courses where Turf provides a playing surface.

15.11.690 Recycled Water

"Recycled Water" means treated or recycled wastewater of a quality suitable for non-potable uses including landscape irrigation and Water Features. This water is not intended for human consumption.

15.11.700 Reference Evapotranspiration (ETo)

"Reference Evapotranspiration" (ETo) means a standard measurement of environmental parameters which affect the water use of plants. ETo is expressed in inches per day, month, or year, and is an estimate of the evapotranspiration of a large field of four- to seven-inch tall, cool-season grass that is well watered. Reference

Evapotranspiration is used as the basis of determining the Maximum Applied Water Allowance so that regional differences in climate can be accommodated.

15.11.710 Rehabilitated Landscape

"Rehabilitated Landscape" means any re-landscaping project that requires a Development Permit or a Building Permit where the modified Landscape Area is at least 50% of the total Landscape Area.

15.11.720 Run-off

"Run-off" means water which is not absorbed by the soil or landscape to which it is applied and flows from the Landscape Area. For example, Run-off may result from water that is applied at too great a rate (Application Rate exceeds Infiltration Rate) or when there is a slope.

15.11.730 Soil Moisture Sensor

"Soil Moisture Sensor" means a device that measures the amount of water in the soil. The device may also initiate or suspend an irrigation event.

15.11.740 Soil Texture

"Soil Texture" means the classification of soil based on its percentage of sand, silt, and clay.

15.11.750 Special Landscape Area (SLA)

"Special Landscape Area" (SLA) means an area of the landscape dedicated solely to edible plants, Water Features, areas using Recycled Water, and/or Recreational Areas.

15.11.760 Sprinkler Head

"Sprinkler Head" means a device which delivers water through a nozzle.

15.11.770 Static Water Pressure

"Static Water Pressure" means the pipeline or Local Water Purveyor's water supply pressure when water is not flowing.

15.11.780 Station

"Station" means an area served by one Valve or by a set of Valves that operate simultaneously.

15.11.790 Swing Joint

"Swing Joint" means an irrigation component that provides a flexible, leak-free connection between the emission device and lateral pipeline to allow movement in any direction and to prevent equipment damage.

15.11.800 Turf

"Turf" means a ground cover surface of mowed, natural grass.

15.11.810 Valve

"Valve" means a device used to control the flow of water in the irrigation system.

15.11.820 Water Conserving Plant Species

"Water Conserving Plant Species" means a plant species identified as having a low Plant Factor.

15.11.830 Water Feature

"Water Feature" means a design element where open water performs an aesthetic or recreational function. Water Features include ponds, lakes, waterfalls, fountains, artificial streams, spas, and swimming pools (where water is artificially supplied). The surface area of Water Features is included in the high water use Hydrozone of the Landscape Area. Constructed wetlands used for on-site wastewater treatment or stormwater best management practices that are not irrigated and used solely for water treatment or stormwater retention are not Water Features and, therefore, are not subject to the Water Budget Calculation.

15.11.840 Watering Window

"Watering Window" means the time of the day irrigation is allowed.

15.11.850 Water Use Classification of Landscape Species (WUCOLS)

"Water Use Classification of Landscape Species" (WUCOLS) means the Water Use Classification Species published by the University of California Cooperative Extension, the Department of Water Resources and the Bureau of Reclamation, 2000, as may be amended.

Part 3

Landscape Installation Requirements

15.11.900 Water Efficiency Design Requirements

A. Landscape Areas shall be designed to achieve water efficiency as required by this Chapter.

B. Applicants may choose one of the following options to demonstrate that the Landscape Project meets the water efficiency criteria required by this Chapter:

1. Plant-Type Restriction Option:

a. Turf, which can be a Recreational Area, shall be limited to twenty-five percent or less of the Landscape Area or 1,250 square feet, whichever is less;

b. Low water use or no water use plants shall be installed in at least eighty percent of the portion of the Landscape Area where Turf is not installed; and

c. If Water Features are installed, the surface area of the Water Features shall not exceed twenty percent (20%) of the Landscape Area.

2. Water Budget Calculation Option:

a. The Plant Factor used shall be from WUCOLS, as may be amended. The Plant Factor in 2013 ranges from 0 to 0.3 for low water use plants, from 0.4 to 0.6 for moderate water use plants, and from 0.7 to 1.0 for high water use plants.

b. All Water Features shall be included in the high water use Hydrozone and temporarily irrigated areas shall be included in the low water use Hydrozone.

c. Where low and moderate water use plants are mixed within a single Hydrozone, the entire Hydrozone area shall be classified as moderate water use for purposes of a Water Budget Calculation. High water use plants shall not be mixed with low or moderate

water use plants.

d. All Special Landscape Areas shall be identified and their water use included in the Water Budget Calculation.

e. The ETAF for Special Landscape Areas shall not exceed 1.0. The ETAF for the remaining Landscape Area shall not exceed 0.7.

f. Irrigation Efficiency shall be at least equal to 71%.

g. The Maximum Applied Water Allowance shall be calculated using the equation:

MAWA = (ETo) (0.62) [(0.7 x LA) + (0.3 x SLA)]

Where:

MAWA = Maximum Applied Water Allowance (gallons per year)
ETo = Reference Evapotranspiration (inches per year).
0.62 = Conversion Factor (to gallons)
0.7 = Evapotranspiration Adjustment Factor (ETAF)
LA = Landscape Area including SLA (square feet)
0.3 = Additional Water Allowance for SLA
SLA = Special Landscape Area (square feet)

h. Estimated Total Water Use (ETWU) shall be calculated for each Hydrozone using the equation below. The sum of the ETWU calculated for all Hydrozones shall not exceed the MAWA.

$$ETWU = (ETo)(0.62)\left(\frac{PF\ x\ HA}{IE} + SLA\right)$$

Where:

ETWU = Estimated Total Water Use per year (gallons)
ETo = Reference Evapotranspiration (inches)
PF = Plant Factor from WUCOLS
HA = Hydrozone Area [high, medium, and low water use areas] (square feet)
SLA = Special Landscape Area (square feet)
0.62 = Conversion Factor
IE = Irrigation Efficiency (minimum 0.71)

3. Recycled Water Option:

At least 90% of the square footage of the Landscape Area shall be irrigated with Recycled Water.

15.11.910 Landscape Documentation Package

A. A Landscape Documentation Package conforming to this Chapter shall be submitted to the Director for the New Construction and Rehabilitated Landscape projects described in Section 15.11.020. The Landscape Documentation Package shall be considered as part of the Development Permit application if a Development Permit is required or shall be included with a Building Permit application. Failure to submit the Landscape Documentation Package required by this Section shall result in a determination of incompleteness pursuant to the provisions of Section 20.100.150 of this Code if a Development Permit is required or shall be deemed an incomplete application pursuant to the provisions of Section 24.02.210.A of this Code if a Building Permit, but not a Development Permit, is required.

B. Except as provided in Section 15.11.920 B., each Landscape Documentation

Package shall include the following elements, which are described in further detail in Sections 15.11.920 through 15.11.1020 of this Chapter:

1. Project information:
    a. Date;
    b. Applicant name and property owner, if different;
    c. Project address (if available, parcel and/or lot number(s));
    d. Total Landscape Area (square feet);
    e. Project type (e.g., New Construction or Rehabilitated Landscape);
    f. Water supply type (e.g., potable, recycled, well) and identify the Local Water Purveyor if the Applicant is not served by a private well;
    g. Checklist of all documents in the Landscape Documentation Package;
    h. Project contact information for the Applicant and property owner if the property owner is not the Applicant;
    i. Proposed method of complying with requirements of this Chapter (e.g., Plant-Type Restriction, Water Budget Calculation, or Recycled Water) as specified in Section 15.11.900.
    j. Applicant signature and date along with the following statement, "I agree to comply with, or cause anyone who works on the Landscape Project to comply with, the requirements of Chapter 15.11 of Title 15 of the San José Municipal Code and to submit a complete Landscape Documentation Package that complies with Chapter 15.11 of Title 15 of the San José Municipal Code."
2. Water efficient landscape worksheet as specified in Section 15.11.920;
3. Soil management report as specified in Section 15.11.930;

4. Landscape design plan as specified in Section 15.11.940;

5. Irrigation design plan as specified in Section 15.11.970; and

6. Grading design plan as specified in Section 15.11.1020.

15.11.920 Water Efficient Landscape Worksheet

A. Applicants who elect to comply with this Chapter through the Water Budget Calculation Option described in Section 15.11.900 shall complete a Water Efficient Landscape Worksheet in a form approved by the Director and submit it as part of the Landscape Documentation Package as specified in Section 15.11.910.

B. Applicants who elect to comply with this Chapter through the Plant-Type Restriction Option or the Recycled Water Option described in Section 15.11.900 shall not be required to submit a Water Efficient Landscape Worksheet as part of the Applicant's Landscape Documentation Package.

15.11.930 Soil Management Report

In order to reduce runoff and encourage healthy plant growth, a soil management report shall be completed by the Applicant as follows:

A. Applicant shall submit soil samples to a plant soil laboratory for analysis and recommendations.

1. Soil sampling shall be conducted in accordance with laboratory protocol, including protocols regarding adequate sampling depth for the intended plants.

2. The soil analysis shall include:

a. Soil Texture;

b. Infiltration Rate determined by laboratory test or Soil Texture

Infiltration Rate table;

c. pH;

d. Total soluble salts;

e. Sodium;

f. Percent organic matter; and

g. Recommendations.

B. Applicant shall comply with one of the following:

1. If significant mass grading is not planned, the soil management report shall be submitted as part of the Landscape Documentation Package; or

2. If significant mass grading is planned, the soil analysis report shall be submitted as part of the Certificate of Completion.

C. Applicant shall certify that the soil management report will be provided to the professionals preparing the landscape design plans and irrigation design plans to make any necessary adjustments to the design plans.

D. Applicant shall submit documentation verifying implementation of the soil management report recommendations to the Director with the Certificate of Completion.

15.11.940 Landscape Design Plan Requirements

A. Except as otherwise provided for in this Section, a landscape design plan arranged by Hydrozone shall be submitted as part of the Landscape Documentation Package. The form of the landscape design plan and the information and data required to be set forth therein shall be as prescribed by the Director and shall at a minimum:

1. Delineate and label each Hydrozone by number, letter, or other method;

2. Identify each Hydrozone as low, moderate, high water, or mixed water

use;

3. Temporarily irrigated areas of the Landscape Area shall be included in the low water use Hydrozone for the Water Budget Calculation if a Water Budget Calculation is prepared pursuant to Section 15.11.900;

4. Identify Recreational Areas;

5. Identify areas permanently and solely dedicated to edible plants;

6. Identify areas irrigated with Recycled Water;

7. Identify type of Mulch and application depth;

8. Identify soil amendments, type, and quantity;

9. Identify type and surface area of Water Features;

10. Identify Hardscapes (Pervious and non-Pervious);

11. Identify location and installation details of any applicable stormwater best management practices that encourage on-site retention and infiltration of stormwater. Stormwater best management practices shall be included in the landscape design plan and examples include, but are not limited to:

    a. Infiltration beds, swales, and basins that allow water to collect and soak into the ground;

    b. Constructed wetlands and retention ponds that retain water, handle excess flow, and filter pollutants; and

    c. Pervious or porous surfaces (e.g., permeable pavers or blocks, Pervious or porous concrete, etc.) that minimize runoff.

12. Identify any applicable rain harvesting or catchment technologies (e.g., rain gardens, cisterns, etc.);

13. Identify on-center spacing for tree(s) measuring from the center of the tree(s) trunk(s) to adjacent Hardscape and structures;

14. Contain the following statement: “I agree to comply with, or cause anyone

who works on the landscape design plan to comply with, the requirements of Chapter 15.11 of Title 15 of the San José Municipal Code and to submit a complete landscape design plan that complies with Chapter 15.11 of Title 15 of the San José Municipal Code"; and

15. Bear the signature of the Landscape Architectauthorized by the property owner or Applicant to design the landscape.

B. Applicants who have elected to use the Plant-Type Restriction Option or the Recycled Water Option as a means of demonstrating compliance with this Chapter shall not be required to show in the landscape design plan that the plant material to be installed does not exceed the MAWA.

15.11.950 Landscape Design Plan Criteria - Plant Material, Selection, and Grouping

A. The landscape design plan shall include Water Conserving Plant Species.

B. Plant varieties that require large amounts of irrigation water to survive the hot dry summer season shall not be used except when the plant is located within a micro-climate area of the Landscape Project that maintains plant health and appearance.

C. Each Hydrozone shall have plant materials with similar water use, with the exception of Hydrozones with plants of mixed water use, as specified in Section 15.11.980.

D. Plants shall be selected and planted appropriately based upon their adaptability to the climatic, geologic, and topographical conditions of the Landscape Project site.

E. All plant materials used in the Landscape Area shall be chosen to ensure that the estimated Applied Water use recommended does not exceed the MAWA for Applicants who choose the Water Budget Calculation Option described in

Section 15.11.900 to demonstrate that the Landscape Project meets the water efficiency criteria required by this Chapter.

F. If Turf is part of the landscape design plan, the installation shall comply with the following:

1. Turf is not allowed on slopes greater than 25% where the toe of the slope is adjacent to an impermeable hardscape and where 25% means 1 foot of vertical elevation change for every 4 feet of horizontal length (rise divided by run x 100 = slope percent); and

2. Turf areas that are less than eight feet wide shall be irrigated in accordance with Section 15.11.980.

G. Fire prone plant materials and highly flammable Mulches are prohibited.

H. The use of Invasive Plant Species and/or noxious plant species is prohibited.

I. A minimum two inch (2″) layer of Mulch shall be applied on all exposed soil surfaces of planting areas except in Turf areas, creeping or rooting groundcovers, or direct seeding applications where Mulch is contraindicated.

J. Stabilizing Mulching products shall be used on slopes.

K. The Mulching portion of the seed/Mulch slurry in hydro-seeded applications shall meet the Mulching requirement referenced in Subsection ~~I.~~J of this Section.

L. Soil amendments shall be incorporated according to recommendations of the soil report and what is appropriate for the plants selected.

15.11.960 Landscape Design Plan Criteria – Water Features

Recirculating Systems or Recycled Water, where available, shall be used for decorative Water Features, such as ponds, lakes, waterfalls, and fountains.

15.11.970 Irrigation Design Plan

An irrigation design plan shall be submitted as part of the Landscape Documentation Package. The irrigation design plan shall be consistent with the Hydrozones for the Landscape Areas. The irrigation design plan shall be set forth in a form prescribed by the Director and at a minimum shall contain all of the following:

A. Location and size of separate water meters for Landscape Areas;

B. Location, type and size of all components of the irrigation system, including controllers, Main and Lateral Lines, Valves, Sprinkler Heads, moisture sensing devices, rain switches, quick couplers, pressure regulators, and Backflow Prevention Devices;

C. Static Water Pressure at the point of connection to the public water supply;

D. Flow Rate (gallons per minute), Application Rate (inches per hour), and design Operating Pressure (pressure per square inch) for each Station;

E. Recycled Water irrigation systems if applicable as specified in Section 15.11.1000;

F. The statement: “I agree to comply with, or cause anyone who works on the irrigation design plan to comply with, the requirements of Chapter 15.11 of Title 15 of the San José Municipal Code and to submit a complete irrigation design plan that complies with Chapter 15.11 of Title 15 of the San José Municipal Code”; and

G. The signature of a Landscape Architect or Certified Irrigation Designer authorized by the property owner or the Applicant to design the irrigation system.

15.11.980 Irrigation Design Plan Criteria – System Requirements

For the efficient use of water, an irrigation design plan meeting the following design criteria for irrigation systems shall be included in the irrigation design plan and submitted as part of the Landscape Documentation Package:

A. Relevant information from the soil management plan, such as soil type and Infiltration Rate, shall be utilized when designing irrigation systems.

B. All irrigation systems shall be designed to avoid Run-off, low head drainage, Overspray and other similar conditions where water flows onto adjacent property, non-irrigated areas, walks, roadways or structures.

C. The design of the irrigation system shall conform to the Hydrozones of the landscape design plan.

D. Irrigation systems shall be designed, installed, and maintained to meet, at a minimum, the Irrigation Efficiency of 0.71.

E. All Landscape Areas in excess of ten thousand square feet shall be designed to allow for the current and future use of Recycled Water except as follows:

1. Landscape Areas in excess of ten thousand square feet do not have to be designed to allow for the current and future use of Recycled Water where the Director grants an exemption to the requirement set forth in Subsection E. of this Section on the basis that Recycled Water is not available, and will not be available in the foreseeable future to serve the Landscape Project.

F. In Mulched planting areas, the use of Low Volume Irrigation is required to maximize water infiltration into the root zone.

G. Sprinkler Heads and other emission devices shall have matched Precipitation Rates, unless otherwise directed by the manufacturer's recommendations.

H. Head to head coverage is required at a minimum, with consideration for average wind conditions. However, sprinkler spacing shall be designed to achieve the highest possible distribution using the manufacturer's recommendations.

I. Narrow or irregularly shaped areas, including Turf, less than eight (8) feet in width in any direction shall be irrigated with subsurface irrigation or Low Volume Irrigation system.

J. Overhead Sprinkler Irrigation Systems shall not be permitted within 24 inches of any non-permeable surface. Allowable irrigation within the setback from non-permeable surfaces may include Drip Irrigation, or other Low Volume Irrigation technology. The setback area may be planted or unplanted. The surfacing of the setback may be Mulch, gravel, or other porous material. These restrictions may be modified if:

1. The adjacent non-permeable surfaces are designed and constructed to drain entirely to landscaping;

2. The Landscape Area is adjacent to permeable surfacing and no runoff occurs; or

3. The Certified Irrigation Designer specifies an alternative design or technology, as part of the Landscape Documentation Package and clearly demonstrates strict adherence to irrigation system design criteria in this Section. Prevention of Overspray and runoff must be confirmed during the Irrigation Audit required by Section 15.11.1040.

K. Slopes greater than 25% shall not be irrigated with an irrigation system with a Precipitation Rate exceeding 0.75 inches per hour. This restriction may be modified if the Certified Landscape Designer specifies an alternative design or technology, as part of the Landscape Documentation Package, and clearly demonstrates no runoff or erosion will occur. Prevention of runoff and erosion must be confirmed during the Irrigation Audit required by Section 15.11.1040.

L. Each Valve shall irrigate a Hydrozone with similar site, slope, sun exposure, soil conditions, and plant materials with similar water use.

M. Sprinkler Heads and other emission devices shall be selected based on what is appropriate for the plant type within that Hydrozone.

N. Trees shall be placed on separate Valves from shrubs, groundcovers, and Turf, where feasible.

O. Individual Hydrozones that mix plants of moderate and low water use, or

moderate and high water use, may be allowed if:

1. The Plant Factor calculation is based on the proportions of the respective plant water uses and their Plant Factor; or

2. The Plant Factor of the higher water using plant is used for calculations.

P. Individual Hydrozones that mix high and low water use plants shall not be permitted.

Q. On the landscape design plan and irrigation design plan, Hydrozone areas shall be designated by number, letter, or other designation. On the irrigation design plan, the areas irrigated by each Valve shall be designated and a number assigned to each Valve.

R. The irrigation system shall be designed to ensure that the dynamic pressure at each emission device is within the manufacturer's recommended pressure range for optimal performance.

1. If the Static Water Pressure is above or below the required dynamic pressure of the irrigation system, pressure-regulating devices such as inline pressure regulators, booster pumps, or other devices shall be installed to meet the required dynamic pressure of the irrigation system.

2. Static Water Pressure, dynamic or Operating Pressure, and flow reading of the water supply shall be measured at the point of connection. These pressure and flow measurements shall be conducted at the design stage. If the measurements are not available at the design stage, the measurements shall be conducted at installation.

15.11.990 Irrigation Design Plan Criteria – Equipment

For the efficient use of water, an irrigation design plan meeting the following design criteria for irrigation equipment shall be included in the irrigation design plan and submitted as part of the Landscape Documentation Package:

A. Landscape irrigation systems for Landscape Projects shall include a separate landscape water meter to the extent required by applicable law.

B. Automatic Irrigation Controllers utilizing either evapotranspiration or Soil Moisture Sensor data shall be required for irrigation scheduling in all irrigation systems.

C. Sensors (rain, freeze, wind, etc.), either integral or auxiliary, that suspend or alter irrigation operation during unfavorable weather conditions shall be required on all irrigation systems, as appropriate for local climatic conditions. Irrigation shall be avoided during windy or freezing weather or during rain.

D. Manual shut-off Valves (such as a gate Valve, ball Valve, or butterfly Valve) shall be required, as close as possible to the point of connection of the water supply, to minimize water loss in case of an emergency (such as a Main Line break) or routine repair.

E. Backflow Prevention Devices and Automatic Irrigation Controllers shall be installed in all irrigation systems and must be able to accommodate all aspects of the design.

F. High flow sensors that detect and report high flow conditions created by system damage or malfunction are required.

G. Sprinkler Heads and other emission devices shall have matched Precipitation Rates.

H. Sprinkler Head spacing shall be head to head.

I. Swing Joints or other riser-protection components are required on all risers subject to damage that are adjacent to high traffic areas.

J. Check Valves or Anti-Drain Valves are required for all irrigation systems.

15.11.1000 Landscape Irrigation Systems with Recycled Water

A. Plants and trees that will be irrigated with Recycled Water as described in the

landscape design plan shall be plants adapted for the San José climate and tolerant of salinity buildup in the soil.

B. All Recycled Water irrigation systems shall:

1. Be metered separately from the potable water supply system;

2. Have no on-site cross-connections to the potable water supply system; and

3. Be designed and operated in accordance with applicable laws.

15.11.1010 Irrigation Schedules

For the efficient use of water, all irrigation schedules shall be developed, managed, and evaluated to utilize the minimum amount of water required to maintain plant health. Irrigation schedules shall meet the following criteria:

A. Irrigation scheduling shall be regulated by Automatic Irrigation Controllers.

B. Overhead irrigation shall be restricted between the hours specified in Chapter 15.10 of this Code.

C. The irrigation schedule shall include run times, emission device, flow rate, and current Reference Evapotranspiration. Actual irrigation schedules shall be regulated by Automatic Irrigation Controllers using current Reference Evapotranspiration data for San José or on site moisture data.

D. Parameters used to set the Automatic Irrigation Controller shall be developed and submitted for each of the following:

1. The Establishment Period;

2. The Established Landscape; and

3. Temporarily irrigated areas

E. Each irrigation schedule shall consider for each Station all of the following that apply:

1. Irrigation interval (days between irrigation);
2. Irrigation run times (hours or minutes per irrigation event to avoid runoff);
3. Number of cycle starts required for each irrigation event to avoid runoff;
4. Amount of Applied Water scheduled to be applied on a monthly basis;
5. Application Rate Setting;
6. Root depth setting;
7. Plant type setting;
8. Soil type;
9. Slope factor setting;
10. Shade factor setting; and
11. Irrigation uniformity or efficiency setting;

F. The landscape irrigation schedule shall be consistent with the requirements of Chapter 15.10 of this Code.

15.11.1020 Grading Design Plan

A. For the efficient use of water, grading of the Landscape Project site shall be designed to minimize soil erosion, runoff, and water waste. A grading plan shall be submitted as part of the Landscape Documentation Package. A comprehensive grading plan prepared by a civil engineer in relation to another City permit application satisfies this requirement.

B. The Applicant shall submit a landscape grading plan that indicates finished configurations and elevations of the landscape area including:

1. Height of graded slopes;
2. Drainage patterns;
3. Pad elevations;

4. Finish grade; and

5. Stormwater retention improvements, if applicable.

C. To prevent excessive erosion and runoff, Applicants shall:

1. Grade so that all irrigation and normal rainfall remains within property lines and does not:

a. Drain on to non-permeable Hardscapes; or

b. Allow for ponding water in violation of applicable law;

2. Avoid disruption of natural drainage patterns and undisturbed soil; and

3. Avoid soil compaction in Landscape Areas.

D. The grading design plan shall contain the following statement: "I agree to comply with, or cause anyone who works on the grading design plan to comply with, the requirements of Chapter 15.11 of Title 15 of the San José Municipal Code and to submit a complete grading design plan that complies with Chapter 15.11 of Title 15 of the San José Municipal Code" and shall bear the signature of a licensed professional as authorized by law.

15.11.1030 Landscape and Irrigation Maintenance Schedule

A. Landscapes shall be maintained to ensure water use efficiency. A regular maintenance schedule shall be submitted to the Director by the Applicant with the Certificate of Completion.

B. A regular maintenance schedule shall include, but not be limited to, routine inspection; adjustment and repair of the irrigation system and its components; aerating and dethatching Turf areas; replenishing Mulch; fertilizing; pruning; weeding in all Landscape Areas, and removing and obstruction to emission devices. Operation of the irrigation system outside the Watering Window is allowed for auditing, system maintenance and during plant Establishment

Periods.

C. Irrigation systems shall be tested, adjusted and repaired following the manufacturers' specifications and the recommendations of the landscape professional who signed the Landscape Design Plan.

D. Failed plants shall be replaced with the same or functionally equivalent plants that may be size-adjusted as appropriate for the stage of growth of the overall installation.

E. Repair of all irrigation equipment shall be done with the originally installed components or their equivalents.

15.11.1040 Irrigation Audit

A. The Applicant shall submit an Irrigation Audit report for New Construction and Rehabilitated Landscapes with the Certificate of Completion that may include, but is not limited to: inspection, system tune-up, system test with distribution uniformity, reporting Overspray or Run-off that causes overland flow, and preparation of an irrigation schedule.

B. All landscape Irrigation Audits shall be conducted by a Certified Landscape Irrigation Auditor.

15.11.1050 Certificate of Completion

A. A Certificate of Completion shall be submitted to the Director prior to the date that a Certificate of Occupancy is issued pursuant to the provisions of Part 6 of Chapter 24.02 of Title 24 of this Code. The form of the Certificate of Completion shall be as prescribed by the Director and shall include the following:

1. A project information sheet that contains:

a. Date;

b. Project name;

c. Applicant name, telephone, and mailing address;

d. Project address and location; and

e. Property owner name, telephone, and mailing address.

2. A certification by the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed Landscape Contractor that the Landscape Project has been installed in accordance with the submitted Landscape Documentation Package:

   a. Where there have been significant changes made in the field during construction, these "as-built" or Record Drawings shall be included with the certification;

   b. Where Recycled Water is used to demonstrate water efficiency for the Landscape Project under Section 15.11.900 the Certificate of Completion shall include a verification by the signer of the landscape design plan, the signer of the irrigation design plan, or the licensed Landscape Contractor that the irrigation system is designed in accordance with Section 15.11.1000.

3. Irrigation scheduling parameters used to set the Automatic Irrigation Controller;

4. Landscape and irrigation maintenance schedule;

5. Irrigation Audit report;

6. Soil management report if not submitted with Landscape Documentation Package; and

7. Documentation verifying implementation of the recommendations contained in the soil management report.

B. The Applicant shall:

1. Submit the signed Certificate of Completion to the Director pursuant to Section 15.11.1050.A above; and

2. Ensure that copies of the Certificate of Completion are submitted to the Local Water Purveyor and property owner or his or her designee.

C. An Applicant shall be fully responsible for and subject to enforcement action for any inaccurate, incomplete or false information provided on its Certificate of Completion. It shall be a violation of this Section for any Applicant to provide any such inaccurate, incomplete or false information on its Certificate of Completion.

SECTION 3. Section 20.100.440 of Chapter 20.100 of Title 20 of the San José Municipal Code is hereby amended to read in its entirety as follows:

20.100.440 Maintenance of Landscape

It shall be a violation of this Title for any property owner or other person in control of any lot to fail to install or maintain any landscaping required by a permit or approval issued pursuant to this Chapter or otherwise in a manner that fails to fully comply with the provisions of Chapters 15.10 or 15.11 of Title 15 of this Code. Any vegetation, required by a permit or approval, or otherwise by Chapters 15.10 or 15.11 of Title 15 of this Code, which is dead or dying shall be replaced within sixty (60) days.

PASSED FOR PUBLICATION of title this _____ day of _____, 2013, by the following vote:

AYES:

NOES:

ABSENT:

DISQUALIFIED:

CHUCK REED
Mayor

ATTEST:

TONI J. TABER, CMC
Acting City Clerk